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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,419	02/26/2002	Vincent C. Skurdal	10016652-1	3494

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HEWLETT-PACKARD COMPANY  
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EXAMINER

RUDOLPH, VINCENT M

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/087,419	SKURDAL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vincent Rudolph	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: page 7, lines 1,2 and 4 of the specification correctly identify "disk drive 226" but incorrectly identify it in lines 5 and 7 as "disk drive 218". Please correctly identify lines 5 and 7 as –disk drive 226–.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 43-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The software architecture claimed is merely a set of instructions per se. Since the software architecture is merely a set of instructions not embodied on a computer readable medium to realize the software architecture functionality, the claimed subject matter is non-statutory. See MPEP § 2106 IV.B.1.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20, 23, 25-29, 32, 34-40, 42-45 and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuroda ('073).

Regarding claim 35, Kuroda ('073) discloses an apparatus, which contains memory such as RAM (See Figure 1, Element 12), a processor such as a CPU (See Figure 1, Element 11), and ROM (See Figure 1, Element 13), which contains computer-readable instructions for the apparatus (See Col. 9, Line 45-46). The apparatus receives data defining a document through an application that wishes to be printed (See Col. 10, Line 65-Col. 11, Line 5). The data is then processed to identify any characteristics, such as the number of pages, so an appropriate N-Up print mode is selected (See Col. 11, Line 38-52).

Regarding claim 36, Kuroda ('073) discloses the data that is processed is associated with text, such as the character print command (See Col. 14, Line 20-23).

Regarding claim 37, Kuroda ('073) discloses the data that is processed is associated with graphics, such as the image draw command that contains the bit map data (See Col. 14, Line 16-25).

Regarding claim 38, Kuroda ('073) discloses the data that is processed is associated with both text and graphics, such as the character print command and image draw command (See Col. 14, Line 16-18).

Regarding claim 39, Kuroda ('073) discloses that the N-Up printing mode is selected based by performing a mapping operation, such as selecting it as an option (See Figure 5), and also based on the characteristic, such as the number of pages, effect to map, or layout, an N-Up mode (See Col. 11, Line 38-52).

Regarding claims 1-5 and 9-13, the rationale provided in the rejection of claims 35-39 is incorporated herein respectively. In addition, the apparatus of claims 35-39 corresponds to the computer-implemented method and computer-readable medium of claims 1-5 and 9-13 and performs the steps disclosed, respectively.

Regarding claim 6, Kuroda ('073) discloses that a look-up table is used to contain a plurality of characteristic values and N-Up mode values, which is associated with the characteristic values, or number of pages (See Figure 12).

Regarding claim 7, Kuroda ('073) discloses changing a characteristic with which an N-Up mode is associated, such as the print mode for the page layout (See Figure 5), so future documents will have the same layout associated with the N-Up mode (See Col. 13, Line 43-47).

Regarding claim 8, Kuroda ('073) discloses the changing the print mode (See Figure 5) is performed responsive to the user input, or changes the user made (See Col. 13, Line 30-37).

Regarding claim 18, Kuroda ('073) discloses at least one characteristic pertaining to the font size, such as the character width and height (See Col. 14, Line 19-22) which effects the number of pages used to select the N-Up mode based on the size of the characters.

Regarding claim 19, Kuroda ('073) discloses a characteristic pertaining to the smallest font size that would appear on the printed document, such as the character height (See Col. 14, Line 19-22) which effects the number of pages used to select the N-Up mode based on the size of the characters.

Regarding claim 20, Kuroda ('073) discloses a characteristic pertaining to the font type, such as the kinds of characters within the character print command (See Col. 14, Line 20-21).

Regarding claim 23, Kuroda ('073) discloses the data that is processed is associated with graphics, such as the image draw command that contains the bit map data (See Col. 14, Line 16-25).

Regarding claim 25, Kuroda ('073) discloses the receiving data comprises bit map data (See Col. 14, Line 16-19).

Regarding claims 14-16 and 34, the rationale provided in the rejection of claims 6-8 and 25 is incorporated herein respectively. In addition, the computer-implemented method of claims 6-8 and 25 corresponds to the computer-readable medium of claims 14-16 and 34 and performs the steps disclosed, respectively.

Regarding claims 17 and 26, the rationale provided in the rejection of claim 35 is incorporated herein. In addition, the apparatus of claim 35 corresponds to the computer-implemented method and computer-readable medium of claims 17 and 26 and additionally Kuroda ('073) discloses the data is processed to identify characteristics of the data, such as font, or character print command. Using this characteristic, the font's height and size effects the number of pages to be printed which in turn determines the appropriate N-Up printing mode to appear on a printed document (See Col. 14, Line 19-22).

Regarding claims 27-29 and 32, the rationale provided in the rejection of claims 18-20 and 23 is incorporated herein respectively. In addition, the computer-

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implemented method of claims 18-20 and 23 corresponds to the computer-readable medium of claims 27-29 and 32 and performs the steps disclosed, respectively.

Regarding claim 40, Kuroda ('073) discloses that the apparatus can be embodied as a printer (See Figure 1, Element 15; Col. 9, Line 65- Col. 10, Line 11).

Regarding claim 42, Kuroda ('073) discloses that the apparatus can be embodied as a server, such as computer, to serve as a data source (See Figure 1; Col. 8, Line 66- Col. 9, Line 5).

Regarding claim 43, Kuroda ('073) discloses a software architecture, such as an application, that is designated with the N-Up print analysis module (See Col. 11, Line 38-40). The N-up analysis module receives the data defining a document from the application that is going to be printed (See Col. 11, Line 38-45). The N-up analysis module then processes the data to identify any characteristics, such as the number of pages, so an appropriate N-Up print mode is selected to print the document (See Col. 11, Line 47-52). The N-up module includes a text analyzer, or character print command, and graphics analyzer, or image draw command (See Col. 14, Line 16-25), to process the data prior to being printed (See Col. 11, Line 43-52).

Regarding claims 44 and 45, the rationale provided in the rejection of claims 6 and 5 is incorporated herein respectively. In addition, the computer-implemented method of claims 6 and 5 corresponds to the software architecture of claims 44 and 45 and performs the steps disclosed, respectively.

Regarding claim 49, Kuroda ('073) discloses the N-Up analysis module is embodied in a server, such as a host or personal computer, to determine the appropriate print mode for the document (See Figure 5; Col. 38-42).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-22 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda ('073) in view of Moseley and Boodey.

Regarding claim 21, Kuroda ('073) discloses processing the data to identify characteristics of the data, such as the number of pages, prior to sending the information to the printer (See Col. 11, Line 4-8; Col. 11, Line 47-52).

Kuroda ('073) does not disclose having a characteristic pertaining to a font complexity.

Moseley and Boodey disclose that within their application program, Microsoft Word, the user has the option to customize the font complexity, whether times new roman, arial, courier, etc., on the toolbar prior to outputting it (See Page 168).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to include font complexity in the application program, such as Microsoft Word, incorporated into the data processing of Kuroda ('073) because the



user has the option to select one of many font complexities to enhance the document prior to having the data processed and outputted onto a printer.

Thus, claim 21 is rejected under 35 U.S.C. 103(a).

Regarding claim 22, Kuroda ('073) discloses processing the data to identify characteristics of the data, such as the number of pages, prior to sending the information to the printer (See Col. 11, Line 4-8; Col. 11, Line 47-52).

Kuroda ('073) does not disclose having a characteristic pertaining to one graphics-based font.

Moseley and Boodey disclose that within their application program, Microsoft Word, the user has the option to insert graphics-based font, such as symbols or special characters like bullets, into the document prior to outputting it (See Page 295).

It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to include font size in the application program, such as Microsoft Word, incorporated into the data processing of Kuroda ('073) because the user has the option to add graphics-based font onto the document page and have the data processed and outputted onto a printer.

Thus, claim 22 is rejected under 35 U.S.C. 103(a).

Regarding claims 30-31, the rationale provided in the rejection of claims 21-22 is incorporated herein respectively. In addition, the computer-implemented method of claims 21-22 corresponds to the computer-readable medium of claims 30-31 and performs the steps disclosed, respectively.

Claims 24, 33, 41 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda ('073) in view of Teranishi (Pub. # 20020051205).

Regarding claim 24, Kuroda ('073) discloses that the receiving data comprises receiving printer control command, to transmit to the printer (See Col. 9, Line 64-Col. 10, Line 4).

Kuroda ('073) does not disclose receiving page description language data.

Teranishi (Pub. # 20020051205) discloses the image data is prepared into page description language data (See Paragraph 0102).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have the page description language data of Teranishi (Pub. # 20020051205) and incorporate it into the data received by the printer of Kuroda ('073) because the printer control language is commonly used with printers so adding the feature allows it to communicate with the printer and properly print out the data received.

Thus, claim 24 is rejected under 35 U.S.C. 103(a).

Regarding claim 33, the rationale provided in the rejection of claim 24 is incorporated herein. In addition, the computer-implemented method of claim 24 corresponds to the computer-readable medium of claim 33 and performs the steps disclosed.

Regarding claim 41, Kuroda ('073) discloses that the apparatus can be embodied as a personal computer (See Figure 1, Element 1; Col. 9, Line 7-17).

Kuroda ('073) does not disclose the apparatus is embodied as a client computing device

Teranishi (Pub. # 20020051205) discloses a client computing device, such as client computers (See Figure 1), to send various image data to be printed (See Paragraph 0053).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have a client computer such as the one disclosed by Teranishi (Pub. # 20020051205) and incorporate it into the apparatus disclosed by Kuroda ('073) because by having the computer as a client computing device, the user is able to have prints jobs requested and sent to a printer.

Thus, claim 41 is properly rejected under 35 U.S.C. 103(a).

Regarding claim 48, Kuroda ('073) discloses the N-Up analysis module is embodied in a personal computer, to determine the appropriate print mode for the document (See Figure 5; Col. 38-42).

Kuroda ('073) does not disclose the apparatus is embodied in a client computer.

Teranishi (Pub. # 20020051205) discloses a client computer (See Figure 1) to send various image data to be printed (See Paragraph 0053).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have a client computer such as the one disclosed by Teranishi (Pub. # 20020051205) and incorporate it into the personal computer disclosed by Kuroda ('073) because by having the computer as a client, the user is able to have the N-Up analysis module to prints jobs by a printer.

Thus, claim 48 is properly rejected under 35 U.S.C. 103(a).

Regarding claim 46, Kuroda ('073) discloses that data is generated to the print driver so it can be printed (See Col. 12, Line 2-13).

Kuroda does not disclose the N-Up analysis module is embodied as a print driver.

In regards to *In re Japikse*, 86 USPQ 70 (CCPA 1950), the court determined that there would be no invention in shifting since the operation of the device would not thereby be modified. So, moving the N-Up analysis from in the host computer to a print driver would have been obvious because the operation would not have been modified.

Thus, claim 46 is rejected under 35 U.S.C. 103(a).

Regarding claim 47, Kuroda ('073) discloses the N-Up analysis module is selected prior to being printed in a printer (See Col. 12, Line 20-29).

Kuroda does not disclose the N-Up analysis module is embodied in a printer.

In regards to *In re Japikse*, 86 USPQ 70 (CCPA 1950), the court determined that there would be no invention in shifting since the operation of the device would not thereby be modified. So, moving the N-Up analysis from in the host computer to a printer would have been obvious because the operation would not have been modified.

Thus, claim 47 is rejected under 35 U.S.C. 103(a).

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is: Teranishi (Pub. # 20020051205) and Robertson ('978).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Rudolph whose telephone number is (571) 272-8243. The examiner can normally be reached on Monday through Friday 8 A.M. - 4:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vincent Rudolph  
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